

Physics Problem Set 3.19.25

Use 10 m/s/s for g

Name _____

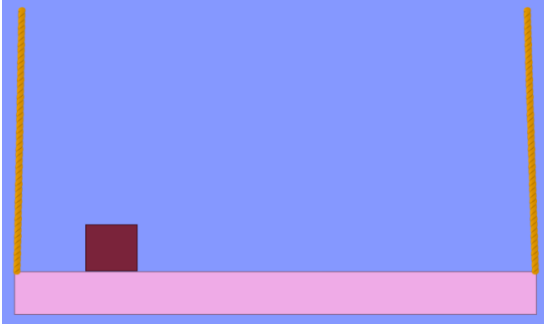
1. A 4 m long board is suspended by 2 ropes attached to opposite ends of the board. The mass of the board is 30 kg.

- a. What is the weight of the board?
- b. What is the tension in the left rope?
- c. What is the tension in the right rope?



2. A 2 m long board is suspended by 2 ropes attached to opposite ends of the board. The mass of the board is 50 kg.

- a. What is the weight of the board?
- b. What is the tension in the left rope?
- c. What is the tension in the right rope?



3. A 4 m long board having a mass of 40 kg is suspended by 2 ropes as shown above. A 10 kg box is resting on the board 1 m from the left end of the board.

- a. What is the weight of the board?
- b. What is the weight of the box?
- c. What is the total downward force on the board?
- d. What is the total upward force on the board?
- e. What is the tension in the left rope?
- f. What is the tension in the right rope?